



IR

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Jens-Christian Meiners, et al.

Group Art Unit:

Examiner:

Serial No.: 10/596,706

Filed: June 22, 2006

For: METHOD FOR MIXING FLUID STREAMS,  
MICROFLUIDIC MIXER AND MICROFLUIDIC CHIP  
UTILIZING SAME

Attorney Docket No.: UOM 0324 PUSA

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97(b)**

Mail Stop Amendment  
Commissioner for Patents  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and §§ 1.97-1.98, the references listed and identified on the attached Forms PTO/SB08A and/or SB08B are being submitted herewith for consideration by the Examiner. This statement is being filed in accordance with 37 C.F.R. § 1.97(b).

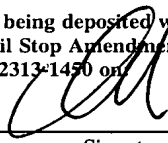
While this Statement is being filed in compliance with the duty of disclosure,

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8 (FIRST CLASS MAIL)**

I hereby certify that this paper, including all enclosures referred to herein, is being deposited with the United States Postal Service as first-class mail, postage pre-paid, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, U.S. Patent & Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 on

April 17, 2007  
Date of Deposit

David R. Syrowik  
Name of Person Signing


  
Signature

citation of the listed references is not to be construed as an admission that any of the references are "material" as defined under 37 C.F.R. § 1.56(b).

No copies of the listed U.S. patent references or the listed U.S. patent application publication references have been included herewith pursuant to 37 C.F.R. § 1.98(a)(2). All other references have been provided as required. Consideration and entry into the record of the listed references is respectfully requested.

Respectfully submitted,

**Jens-Christian Meiners, et al.**

By:   
\_\_\_\_\_  
David R. Syrowik  
Reg. No. 27,956  
Attorney/Agent for Applicant

Date: April 17, 2007

**BROOKS KUSHMAN P.C.**  
1000 Town Center, 22nd Floor  
Southfield, MI 48075-1238  
Phone: 248-358-4400  
Fax: 248-358-3351



Substitute for Form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	10/596,706	
			Filing Date	June 22, 2006	
			First Named Inventor	Jens-Christian Meiners	
			Group Art Unit		
			Examiner Name		
Sheet	1	of	2	Attorney Docket Number	UOM 0324 PUSA

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		UNGER, MARC A., ET AL., Monolithic Microfabricated Valves and Pumps by Multilayer Soft Lithography, Science, Vol. 288, April 7, 2000, pp. 113-116.	
		THORSEN, TODD, ET AL., Microfluidic Large-Scale Integration, Science, Vol. 298, October 18, 2002, pp. 580-584.	
		LIU, JIAN, ET AL., A Nanoliter Rotary Device For Polymerase Chain Reaction, Electrophoresis 2002, 23, pp. 1531-1536.	
		STROOCK ABRAHAM D., ET AL., Chaotic Mixer For Microchannels, Science, Vol. 295, January 25, 2002, pp. 647-651.	
		LIU, ROBIN H., ET AL., Passive Mixing in a Three-Dimensional Serpentine Microchannel, Journal of Microelectromechanical Systems, Vol. 9, No. 2, June 2000, pp. 190-197.	
		THERRIAULT, DANIEL, ET AL., Chaotic Mixing in Three-Dimensional Microvascular Networks Fabricated by Direct-Write Assembly, Nature Materials, Vol. 2, April 2003, pp. 265-271, 347.	
		BESSOTH FIONA G., ET AL., Microstructure for Efficient Continuous Flow Mixing, Anal. Commun., 1999, 36, pp. 213-215.	
		HESSELL, V., ET AL., Laminar Mixing in Different Interdigital Micromixers: I. Experimental Characterization, AIChE Journal, March 2003, Vol. 49, No. 3, pp. 566-577.	
		DETINGER, STEPHAN K.W., ET AL., Generation of Gradients Having Complex Shapes Using Microfluidic Networks, Analytical Chemistry, Vol. 73, No. 6, March 15, 2001, pp. 1240-1246.	
		DUFFY, DAVID C., ET AL., Rapid Prototyping of Microfluidic Systems in Poly(dimethylsiloxane), Analytical Chemistry, Vol. 70, No. 23, December 1, 1998, pp. 4974-4984.	
		CHEN, HAO, ET AL., Robust Interconnects and Packaging for Microfluidic Elastomeric Chips, Analytical Chemistry, Vol. 75, No. 19, October 1, 2003, pp. 5287-5291	

<b>Examiner Signature</b>		<b>Date Considered</b>	
-------------------------------	--	----------------------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

Substitute for Form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>			<b>Complete if Known</b>		
			Application Number	10/596,706	
			Filing Date	June 22, 2006	
			First Named Inventor	Jens-Christian Meiners	
			Group Art Unit		
			Examiner Name		
Sheet	2	of	2	Attorney Docket Number	UOM 0324 PUSA

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		SONG, HELEN, ET AL., A microfluidic System for Controlling Reaction Networks in Time, Angew. Chem. Int. Ed. 2003, 42, No. 7, pp. 768-772.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.